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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/751,719

12/29/2000

Dennis M. Briddell

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7590

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EXAMINER

JONES, PRENELL P

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,719

Applicant(s)

BRIDDELL ET AL.

Examiner

Prenell P Jones

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 7-9, 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 1-6, 10 and 13-20 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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3. Claims 1-5 and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheikh et al in view of Garcen et al and Davis et al.

Regarding claims 1, 2, 4, 13, 14, 17, 18 and 20, Sheikh discloses (Abstract, Figs. 1-3, col. 3, line 18 thru col. 5, line 67) managing communications among computer devices (plurality modules) wherein the architecture include a fabric controller managing communication between peer and host devices, fabric controller managing the flow of transaction request, a main host bus, other buses to support communication among peripheral devices, a common bus known in the art which is a PCI bus that supports communication by PCI devices to host and other devices, form of transaction depends of bus protocol, plurality of PCI devices, plurality of peer devices and host communicating via plurality I/O buses. Sheikh is silent of switching fabric for interfacing a host and multiple network modules/devices and host bus and peer bus being separate from one another. In analogous art, Garcen discloses (Abstract, Fig1, col. 1, line 49 thru col. 7, line 15) monitoring/maintaining a plurality of modules wherein the plurality of modules communicate between switching modules which are associated with a switching fabric, whereby the switching modules consist of link controllers, communication between host processors and plurality of modules is implemented via switch modules/switch fabric, communication via PCI bus. In addition, it is inherent that buses are interfaces for communicating data/information/transactions, and Davis discloses (Figs. 8, 11, 14 & 15, col. 17, line 20 thru col. 18, line 55) a PCI transaction bus system that includes a primary/secondary peer bus and a host bus coupled to a

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host/local processor. Therefore, it would have been obvious to one of ordinary skill in the art to implement a switching fabric for interfacing host/hosts and multiple communication devices/modules and using individual peer and host buses for communicating data in conjunction with host processor as taught by the combined teachings of Garcen and Davis with the teachings of Sheikh to further provide additional control and managing/monitoring/maintaining of data as associated in a PCI system/network.

Regarding claims 3, 5, 15-16 and 19 as indicated above, Sheikh discloses (Abstract, Figs. 1-3, col. 3, line 18 thru col. 5, line 67) managing communications among computer devices (plurality modules) wherein the architecture include a fabric controller managing communication between peer and host devices, fabric controller managing the flow of transaction request, a main host bus, other buses to support communication among peripheral devices, a common bus known in the art which is a PCI bus that supports communication by PCI devices to host and other devices, form of transaction depends of bus protocol, plurality of PCI devices, plurality of peer devices and host communicating via plurality I/O buses. Sheikh further discloses (col. 4, line 1-55) fabric PCI bridges for providing protocol conversion to connect PCI buses to other various protocol buses.

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4. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheikh et al in view of Garcen et al and Davis et al as applied to claims 1-5 and 13-20 above, and further in view of Wooten et al.

Regarding claims 6, Sheikh discloses (Abstract, Figs. 1-3, col. 3, line 18 thru col. 5, line 67) managing communications among computer devices (plurality modules) wherein the architecture include a fabric controller managing communication between peer and host devices, fabric controller managing the flow of transaction request, a main host bus, other buses to support communication among peripheral devices, a common bus known in the art which is a PCI bus that supports communication by PCI devices to host and other devices, form of transaction depends of bus protocol, plurality of PCI devices, plurality of peer devices and host communicating via plurality I/O buses. Sheikh is silent of switching fabric for interfacing a host and multiple network modules/devices and host bus and peer bus being separate from one another. In analogous art, Garcen discloses (Abstract, Fig1, col. 1, line 49 thru col. 7, line 15) monitoring/maintaining a plurality of modules wherein the plurality of modules communicate between switching modules which are associated with a switching fabric, whereby the switching modules consist of link controllers, communication between host processors and plurality of modules is implemented via switch modules/switch fabric, communication via PCI bus. In addition, it is inherent that buses are interfaces for communicating data/information/transactions, and Davis discloses (Figs. 8, 11, 14 & 15, col. 17, line 20 thru col. 18, line 55) a PCI transaction bus system that includes a primary/secondary peer bus and a host bus

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coupled to a host/local processor. However, Sheikh, Garcen and Davis are silent on bus controller associated with a host bus/peer bus. In analogous art, Wooten discloses (Abstract, col. 2, line 15-67, col. 4, line 41 thru col. 5, line 23, col. 17, line 37-65) a communication system that manages the sending/receiving of data information between nodes/modules wherein the architecture consist of multiple I/O devices (plurality modules) wherein messages and commands are transferred between devices via buses such as host processor buses, bus controllers for controlling communication among devices such as peer/host devices. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement bus controllers associated with host/peer devices as taught by Wooten with the combined teachings of Sheikh, Garcen and Davis for the purpose of linking various buses for communication requirements.

Regarding claim 10, as indicated above, Wooten discloses (Abstract, col. 2, line 15-67, col. 4, line 41 thru col. 5, line 23, col. 17, line 37-65) a communication system that manages the sending/receiving of data information between nodes/modules wherein the architecture consist of multiple I/O devices (plurality modules) wherein messages and commands are transferred between devices via buses such as host processor buses, bus controllers for controlling communication among devices such as peer/host devices. Wooten further discloses (Abstract, col. 17, line 37-67) upstream/downstream devices wherein the clock frequencies maybe different.

Allowable Subject Matter

5. Claims 7, 8, 9, 11 and 12 allowed over prior art.

The following is a statement of reasons for the indication of allowable subject matter: As indicated in the previous office action claims 7, 8, 9, 11 and 12 were indicated as containing allowable subject matter. Applicant has amended previously objected claims 7, 8, 9, 11 and 12 to now read as independent claims.

The following is a statement of reasons for the indication of allowable subject matter: Although the combined cited art of Sheikh managing communications among computer devices (plurality modules) wherein the architecture include a fabric controller managing communication between peer and host devices, fabric controller managing the flow of transaction request, a main host bus, other buses to support communication among peripheral devices, a common bus known in the art which is a PCI bus that supports communication by PCI devices to host and other devices, form of transaction depends of bus protocol, plurality of PCI devices, plurality of peer devices and host communicating via plurality I/O buses, monitoring/maintaining a plurality of modules wherein the plurality of modules communicate between switching modules which are associated with a switching fabric, whereby the switching modules consist of link controllers, communication between host processors and plurality of modules is implemented via switch modules/switch fabric, communication via PCI bus, write posting buffers, upstream and downstream devices having different clock frequencies. In addition, it is inherent that buses are interfaces for communicating data/information/transactions they fail to teach/suggest each network module interface

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consisting of a network module delayed read buffer, host delayed buffer and a processor initiator write buffer receiving information over host bus, peer bus carries layer two traffic, host bus carries layer three traffic and a clock driving the host bus and peer bus is derived from a clock driving the host communication link.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

January 18, 2005



CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2667

1/19/05